

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 4, 5, 7-9, 11 and 12, CANCEL claims 1-3 and 6, and ADD claims 13-15 in accordance with the foregoing:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Currently Amended) A defrosting method of a refrigerator comprising the steps of: ~~determining whether or not a predetermined first defrosting completion condition is usable; if the predetermined first defrosting completion condition is usable, executing a first defrosting mode, which uses the predetermined first defrosting completion condition; and~~

~~if the predetermined first defrosting completion condition is not usable, executing a second defrosting mode, which uses a predetermined second defrosting completion condition different from the predetermined first defrosting completion condition, and a defrosting execution determination condition different from that of the first defrosting mode,~~

~~wherein the determination of whether or not the predetermined first defrosting completion condition is usable is made, based on checking whether a heat exchanger temperature sensor adapted to measure a temperature of a heat exchanger, to be defrosted, is in a normal state or in a failure state;~~

~~wherein the executing a first defrosting mode is executed according to a first defrosting condition when it is determined that the heat exchanger temperature sensor is in the normal state; and~~

and the executing a second defrosting mode is executed according to a second defrosting condition when it is determined that the heat exchanger temperature sensor is in the failure state;

wherein the step of executing the second defrosting mode comprises the steps of:

comparing a temperature of a storage compartment, to be cooled in accordance with an operation of the heat exchanger, with a reference temperature; and

if the temperature of the storage compartment is lower than the reference temperature, determining that a compressor and a storage compartment fan operate normally, and turning on a defrost heater adapted to defrost the heat exchanger for a predetermined time for a defrosting operation.

5. (Currently Amended) The defrosting method according to claim 4, wherein the step of executing the second defrosting mode further comprises the step of:

if the temperature of the storage compartment is not lower than the reference temperature, determining that at least one of the compressor and the storage compartment fan operates abnormally, and preventing the defrost heater from being driven to prevent the defrosting operation from being executed.

6. (Cancelled)

7. (Currently Amended) The defrosting method according to claim 34, wherein: ~~the first defrosting completion condition is satisfied when the temperature measured by the heat exchanger temperature sensor reaches a reference temperature; and~~

~~the first defrosting mode is adapted to execute a defrosting operation in accordance with the first defrosting completion condition~~ the reference temperature is set by a maximum temperature of the storage compartment available when the compressor and the storage compartment fan operate normally.

8. (Currently Amended) A defrosting method of a refrigerator comprising the steps of: determining whether or not a heat exchanger temperature sensor adapted to measure a temperature of a heat exchanger, to be defrosted, is in a failure state;

if the heat exchanger temperature sensor is in a failure state, comparing a temperature of a storage compartment, to be cooled in accordance with an operation of the heat exchanger, with a reference temperature; and

if the temperature of the storage compartment is lower than the reference temperature, determining that a compressor and the storage compartment fan operate normally, and turning on a defrost heater adapted to defrost the heat exchanger for a predetermined time for a defrosting operation.

9. (Currently Amended) The defrosting method according to claim 8, further comprising the step of:

if the temperature of the storage compartment is not lower than the reference temperature, determining that the compressor and the storage compartment fan operate abnormally, and preventing the defrost heater from being driven to prevent the defrosting operation from being executed.

10. (Original) The defrosting method according to claim 8, wherein the failure state of the heat exchanger temperature sensor corresponds to an open-circuited or short-circuited state.

11. (Currently Amended) A refrigerator comprising:

a heat exchanger adapted to exchange heat with air in a storage compartment;

a heat exchanger temperature sensor adapted to measure a temperature of the heat exchanger;

a defrost heater adapted to perform a defrosting operation for the heat exchanger; and

a control unit adapted to execute a first defrosting mode for a defrosting time determined in accordance with a detection value of the heat exchanger temperature sensor when the heat exchanger temperature sensor is in a normal state, while executing a second defrosting mode for a defrosting time limited to a predetermined time, which uses a defrosting completion condition and a defrosting execution determination condition different from those of the first defrosting mode, when the heat exchanger temperature sensor is in a failure state.

12. (Currently Amended) The refrigerator according to claim 11, wherein:
the first defrosting mode is executed to drive the defrost heater until the temperature measured by the heat exchanger temperature sensor reaches a first reference temperature; and
~~the second defrosting mode is executed to drive the defrost heater for a predetermined time when a temperature of the storage compartment is not higher than a second reference temperature.~~

13. (New) The refrigerator according to claim 11, wherein the control unit determines that a compressor and a storage compartment fan operate normally, when a temperature of the storage compartment is lower than a second reference temperature, and executes the second defrosting mode, based on the determination.

14. (New) A defrosting method of a refrigerator comprising the steps of:
checking whether a heat exchanger temperature sensor adapted to measure a temperature of a heat exchanger, to be defrosted, is in a normal state or in a failure state;
executing a first defrosting mode according to a first defrosting condition when it is determined that the heat exchanger temperature sensor is in the normal state; and
executing a second defrosting mode according to a second defrosting condition when it is determined that the heat exchanger sensor is in the failure state;
wherein the step of executing the second defrosting mode comprises the steps of:
comparing a temperature of a storage compartment, to be cooled in accordance with an operation of the heat exchanger, with a reference temperature; and
if the temperature of the storage compartment is higher than the reference temperature, determining that at least one of a compressor and a storage compartment fan operates abnormally, and preventing a defrost heater adapted to defrost the heat exchanger from being driven to prevent a defrosting operation from being executed.

15. (New) The defrosting method according to claim 14, wherein the reference temperature is set by a maximum temperature of the storage compartment available when the compressor and the storage compartment fan operate normally.